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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,652	11/29/2001	Naoto Ohashi	SHC0160	7387

35684 7590 08/25/2005

BUTZEL LONG  
350 SOUTH MAIN STREET  
SUITE 300  
ANN ARBOR, MI 48104

EXAMINER
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REICHLE, KARIN M

ART UNIT	PAPER NUMBER
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3761

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

John

<b>Office Action Summary</b>	<b>Application No.</b> 09/997,652	<b>Applicant(s)</b> OHASHI ET AL.	
	<b>Examiner</b> Karin M. Reichle	<b>Art Unit</b> 3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6-20-05 has been entered.

### ***Specification***

#### ***Drawings***

2. The drawings were received on 6-20-05. These drawings are approved by the Examiner.

### ***Description***

3. The disclosure is objected to because of the following informalities: on page 5, line 4 “and” should be deleted and on line 6, “.” should be --; and--.

Appropriate correction is required.

***Claim Language Interpretation***

4. With regard to claim 1, it is noted that the grooves as claimed are excluded from the end portions of the diaper not the absorbent core and the core is not excluded from nor required to extend into the end portions of the diaper, i.e. the core can or cannot extend to the ends of the diaper and if not the grooves can extend to the end of the core. The claim language "being aligned with one another longitudinally" is interpreted as not requiring the segments to be collinear but merely requiring that a longitudinal straight line drawn from one end of the article to the other would intersect at least a portion of each segment. Claim 1 now recites the at least one groove being excluded from extending across a longitudinal center of the crotch region of the diaper. "Excluded" is interpreted as not being present. While a crotch region 8 has been described, such terminology has not been specifically defined relative to that region textually or pictorially, see paragraph 4 supra. Therefore such terminology will be interpreted to be defined as at least including the longitudinal centerline of the crotch region. It is noted that the extent of the waist regions and crotch region individually with respect to the overall length of the diaper has not been set forth. It is noted that the last three lines of claim 1 appear to be redundant, i.e. see lines 4-7 of claim 1. Finally it is noted that the claim does not require that the segments be adjacent one another but for the exclusion from at least the longitudinal centerline or only one groove with two segments, e.g. the segments could be spaced and have another groove/segments or other grooves/segments therebetween which are aligned or not aligned therewith or be between other aligned or not aligned groove(s)/segments. With regard to claim 6, this claim is interpreted as requiring the backsheet to be formed with the claimed grooves (It is noted this claim would be in better form if on line 2, "formed" were amended as --which is also formed--).

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 2, 4-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morin '003 in view of Cole et al '104, Toyoshima et al '118 and Repke '820.

Claims 1, 4-5 and 7: See Figures, especially the lower right cutaway corner of Figure 1 which shows the grooves 17 stopping at the solid transverse line spaced inwardly of the longitudinal end of the pad, i.e. the grooves do not extend all the way to the longitudinal ends of the core and pad, i.e. the end portions, col. 1, lines 17-18, col. 2, lines 11-14 and 29-32, col. 3, lines 34-38 and 66-69, col. 4, lines 11-16 and 37-64 and claim 12 of Morin, i.e. cover member is 13, topsheet is 11, core is 12 and backing sheet is 15, groove(s) are 17. Therefore the Morin '003 reference clearly teaches all the claimed structure except for at least one groove consisting of two segments which segments extend into the crotch region and the front and back waist regions, respectively, but are excluded from at least the longitudinal centerline of the crotch region and are aligned with one another longitudinally. Morin at least teaches a groove or grooves 17 extending continuously in the longitudinal and/or transverse direction. Furthermore, while the instant specification discloses that the grooves collect transversely flowing fluids to prevent leakage and spread such liquid longitudinally and provide spacing, it does not disclose the criticality of the groove pattern claimed, i.e. discontinuous grooves extending in the longitudinal direction over continuous grooves such as that shown by Morin, see the paragraph bridging pages 10-11. Also, Morin additionally teaches that the groove or grooves can be

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arranged in more than one pattern, i.e. see the portions of Morin cited supra. Still furthermore, see Cole et al '104 at Figures 1-2 and 5A-E and col. 1, lines 18-22, col. 4, line 52-col. 5, line 17, Toyoshima et al at Figures 1 and 7, col. 1, lines 46-50, col. 2, lines 3-4, col. 4, lines 6-15, col. 7, lines 40-42, col. 10, lines 4-7 and 41-61, and Repke '820 at Figures 3, 16, 18, and 27 and col. 9, lines 36-39, col. 11, lines 9-43, col. 16, lines 20-31 and col. 16, line 60-col. 17, line 52, i.e. teach interchangeability of an embossed groove pattern in which the grooves are continuous for a pattern in which the grooves are discontinuous or a pattern in which the grooves are both, interchangeability of grids for longitudinal straight lines or longitudinal straight lines with transverse straight lines at the ends thereof, interchangeability of staggered discontinuous lines for non-staggered discontinuous lines, the interchangeability of the similar density and/or spacing of grooves/segments, i.e. number of grooves/segments, with dissimilar density and/or spacing, etc. Therefore, to make the grooves of Morin at least discontinuous rather than continuous, if not already, i.e. such that they include segments which are aligned longitudinally, extend into the crotch region and respective waist region but excluded from at least the longitudinal centerline, see Claim Language Interpretation section supra, would be obvious in view of the interchangeability of groove patterns as taught by Cole et al, Toyoshima et al and Repke, especially in view of the lack of disclosure of the criticality as discussed supra. It is noted that the prior art, e.g. Repke additionally teaches that the discontinuities provide hinges to enable conformity to the wearer during use.

Claim 2: see discussion of claims 1, 4-5 and 7 supra and Figure 18 of Repke, i.e. at least one further groove which is orthogonal at each end.

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7. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morin, Cole et al, Toyoshima et al and Repke as applied to claim 1 and further in view of the American Heritage Dictionary definition of “grid” and Megison et al.

Applicants claims the at least one first groove/segments extending longitudinally and at least one second groove extending orthogonally to the first groove/segments, and intersecting with one of the segments first grooves and extending to transverse side edges of the body fluid absorbent member. The prior art, see Claim 12 of Morin, teaches the groove/segments can be arranged in the form of a “grid” of intersecting lines and, see Figures of Morin, Cole et al and Repke, teaches the “grid” of intersecting lines may form diamonds. However the American Heritage Dictionary also teaches a “grid” is “ frame work of parallel or crisscrossed bars, gridiron” or “ a pattern of horizontal and vertical lines forming squares of uniform size on a map, chart aerial ...points”. Also see Megison et al, Figures and col. 9, lines 10-14. To employ a “grid” of intersecting lines which forms squares on the Morin device(if not already) would be obvious to one of ordinary skill in the art in view of The American Heritage Dictionary and Megison because the term “grid” is known to also include “grids” which form squares and the desire of Morin to employ a “grid” pattern. In so doing, the prior art combination teaches at the very least a grid pattern which forms squares with discontinuous grooves/segments extending in the transverse and longitudinal directions, i.e. at least a second groove “intersecting” a segment of at least a first groove, i.e. it is noted that the claim language does not require a continuous second groove or a second groove of only one segment or the segment and second groove being continuous. In any case, the Examiner’s second position, the prior art teaches the combination of continuous and discontinuous lines, i.e. the longitudinal intersecting lines could be discontinuous

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while the transverse intersecting lines could be continuous, see, e.g., lines 107 in Figure 2 of Cole.

8. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glassman in view of Morin, Johnston et al, Cole et al, Toyoshima et al and Repke.

Glassman teaches all the claimed structure, except for 1) at least one groove being formed in the backsheet facing side and 2) the at least one groove consisting of two segments which segments extend into the crotch region and the front and back waist regions respectively but are excluded from at least the longitudinal centerline of the crotch region and are aligned with one another longitudinally, i.e. see Figures 1, 3, 5, cover is 11, member is 17, topsheet is 14a, core is 13a and backing sheet is 12a, the adhesive detachably fixing the member to the cover is 22, see col. 2, lines 63-65 and col. 4, lines 19-23, grooves are 25, see col. 3, lines 32-37 and claims 7-8. The grooves 25 are for distributing moisture within the member and prevent puddling. With respect to 1), also note the cited portions of Morin, i.e. grooves 17 are for distributing moisture within absorbent member and prevent puddling, and Figures 2 and 4 and col. 6, lines 17-24 of Johnston et al, i.e. grooves for distributing moisture may channels or grooves on one or both major surfaces for fluid distribution. To employ grooves on both sides of the insert of Glassman et al instead of just one side would have been obvious to one of ordinary skill in the art in view of the teachings of Morin and Johnston et al due to the recognition that such would improve the distribution of moisture, i.e. more grooves for distribution, and Glassman's desire for such distribution as well as the interchangeability of channels on both sides for channels on one side as taught by Johnston et al. With regard to 2), while the instant specification discloses that the grooves collect transversely flowing fluids to prevent leakage and



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spread such liquid longitudinally and provide spacing, it does not disclose the criticality of the groove pattern claimed, i.e. discontinuous grooves extending in the longitudinal direction over continuous grooves such as that shown by Glassman, see the paragraph bridging pages 10-11. Still furthermore, see Cole et al '104 at Figures 1-2 and 5A-E and col. 1, lines 18-22, col. 4, line 52-col. 5, line 17, Toyoshima et al at Figures 1 and 7, col. 1, lines 46-50, col. 2, lines 3-4, col. 4, lines 6-15, col. 7, lines 40-42, col. 10, lines 4-7 and 41-61, and Repke '820 at Figures 3, 16, 18, and 27 and col. 9, lines 36-39, col. 11, lines 9-43, col. 16, lines 20-31 and col. 16, line 60-col. 17, line 52, i.e. teach interchangeability of an embossed groove pattern in which the grooves are continuous for a pattern in which the grooves are discontinuous or a pattern in which the grooves are both, interchangeability of grids for longitudinal straight lines or longitudinal straight lines with transverse straight lines at the ends thereof, interchangeability of staggered discontinuous lines for non-staggered discontinuous lines, the interchangeability of the similar density and/or spacing of grooves/segments, i.e. number of grooves/segments, with dissimilar density and/or spacing, etc. Therefore, to make the grooves of Glassman at least discontinuous rather than continuous, i.e. such that they include segments which are aligned longitudinally, extend into the crotch region and respective waist region but excluded from at least the longitudinal centerline, see Claim Language Interpretation section supra, would be obvious in view of the interchangeability of groove patterns as taught by Cole et al, Toyoshima et al and Repke, especially in view of the lack of disclosure of the criticality as discussed supra. It is noted that the prior art, e.g. Repke additionally teaches that the discontinuities provide hinges to enable conformity to the wearer during use.

***Response to Arguments***

9. Applicant's remarks with respect to informal matters have been considered but are either deemed moot in that the issue discussed has not been repeated or deemed not persuasive for the reasons set forth supra. Applicant's remarks with regard to the prior art rejections have been considered but are deemed not persuasive in light of the prior art rejection.

***Conclusion***


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited but not applied shows further teachings of groove/segment patterns known in the absorbent pad art. The Cooper reference teaches the interchangeability of a attached pad and cover for a detachable pad and cover.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karin M. Reichle whose telephone number is (571) 272-4936. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tanya Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Karin M. Reichle  
Primary Examiner  
Art Unit 3761

KMR  
August 20, 2005